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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,827	08/18/2003	Martin E. Lozano	024.0018	5166
29906	7590	05/01/2006	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C. 7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			AGRAWAL, CHRISTOPHER K	
			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/643,827	<b>Applicant(s)</b> LOZANO ET AL.	
	<b>Examiner</b> Christopher K. Agrawal	<b>Art Unit</b> 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/22/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 1-15 and 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 3, 2006.
2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: "preventing" should be changed to read --prevent--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 24 recites the limitation "said fingers" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, Examiner has interpreted claim 24 to depend from claim 23 to eliminate antecedent issue.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 16-18, 20-21, 23-26, 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Krumweide (U.S. Patent No. 4,239,564).**

9. Claim 16: Krumweide teaches a method for adapting a propellant container to prevent de-bonding of insulation therefrom, which comprises: forming at least a part of said propellant container (**Col. 1 lines 16-22**) from a substrate having an outer surface **12**; and covering said substrate with a base material **14** having a rough outer surface relative to said outer surface of said substrate (**Col. 3 lines 44-58**).

10. Claim 17: Krumweide also teaches the method further comprising forming an insulation material over said base material (**Col. 1 lines 20-24; Col. 2 lines 9-11**).

11. Claim 18: Krumweide also teaches the method wherein said insulation is spray-on foam insulation (**Col. 4 lines 48-52**).

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12. Claim 20: Krumweide also teaches the method wherein a base material is a mesh sheet **14, 16** having openings therein (**Col. 4 lines 4-40**).

13. Claim 21: Krumweide also teaches the method wherein said base material **14** has extensions **10** that extend in a direction away from said substrate outer surface (**see Fig. 1**).

14. Claim 23: Krumweide also teaches the method wherein said extensions have fingers **18** for gripping an insulation material to be formed over said base material outer surface.

15. Claim 24: Krumweide also teaches the method wherein said fingers extend away from said extensions in a direction approaching said substrate outer surface (**see angled face of 18 pointing in direction of substrate outer surface**).

16. Claim 25: Krumweide teaches the method wherein said fingers together form hooked formations **18**.

17. Claim 26: Krumweide teaches the method wherein said fingers together form barbed formations **18**.

18. Claim 31: Krumweide teaches the method wherein said base material is tack-welded to said substrate (**via extensions 10; see Col. 7 lines 39-41**).

19. Claim 33: Krumweide teaches a method for preventing de-bonding of insulation from a container (**Col. 1 lines 16-22**), which comprises: forming at least a part of said propellant container from a substrate having an outer surface **12**; covering said substrate with a base material **14** having a rough outer surface relative to said outer

surface of said substrate (**Col. 3 lines 44-58**); and forming an insulation material over said outer surface of said base material (**Col. 1 lines 20-24; Col. 2 lines 9-11**).

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. **Claims 16-18, 20-26, 29-31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krumweide (U.S. Patent No. 4,239,564) in view of Bennett (U.S. Patent No. 3,753,848).**

22. Claim 16: Krumweide teaches a method for adapting a propellant container to prevent de-bonding of insulation therefrom (**Col. 1 lines 16-22**), which comprises: forming at least a part of said container from a substrate having an outer surface **12** and covering said substrate with means **10, 14, 16, 18** to retain foam insulation (**Col. 1 lines 20-24; Col. 2 lines 9-11**) but does not specifically teach the method including covering the substrate with a base material having a rough outer surface relative to said outer surface of said substrate.

23. Bennett teaches a method for retaining insulation including covering a container substrate with a base material **27** having a rough outer surface (**including attached irregularities 33; Col. 2 lines 63-65**) relative to said outer surface of said substrate for the purpose of securing insulation to the surface of the container.

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24. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated use of a base material having a rough outer surface, as taught by Bennett, for the purpose of retaining the means 10 of Krumweide for securing the insulation to the container surface.

25. Claim 17: Krumweide/Bennett teach the method of claim 16 as described above. Krumweide also teaches the method including forming an insulation material over a base material of the container surface (**Col. 1 lines 20-24; Col. 2 lines 9-11**).

26. Claim 18: Krumweide/Bennett teach the method of claim 17 as described above. Krumweide also teaches the method wherein said insulation is spray-on foam insulation (**Col. 4 lines 48-52**).

27. Claim 20: Krumweide/Bennett teach the method of claim 16 as described above but do not specifically teach the method wherein a base material is a mesh sheet having openings therein.

28. Krumweide teaches the method wherein a layer of the retaining means is a mesh sheet **14, 16** having openings therein (**Col. 4 lines 4-40**).

29. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a mesh sheet having openings therein, as taught in the securing means of Krumweide, as the base layer of Bennett especially given the known use of such a mesh layer for securing insulation.

30. Claim 21: Krumweide/Bennett teach the method of claim 16 as described above. Bennett further teaches the method wherein said base material **27** has extensions **33** that extend in a direction away from said substrate outer surface.

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31. Claim 22: Krumweide/Bennett teach the method of claim 21 as described above but do not specifically teach the method wherein said extensions are formed by machine punching said base material.

32. Krumweide teaches the method wherein a layer of the retaining means has extensions formed by machine punching (**Col. 7 lines 44-46**) for the purpose of forming a roughened layer for retaining insulation.

33. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a punching step for the purpose of creating extensions capable of retaining foam insulation.

34. Claim 23: Krumweide/Bennett teach the method of claim 21 as described above. Bennett further teaches the method wherein said extensions have fingers **49** for gripping an insulation material to be formed over said base material outer surface.

35. Claim 24: Krumweide/Bennett teach the method of claim 23 as described above. Bennett further teaches the method wherein said fingers **49** extend away from said extensions in a direction approaching said substrate outer surface (**see Fig. 2 where top surfaces of fingers 49 point in direction approaching substrate outer surface 22**).

36. Claim 25: Krumweide/Bennett teach the method of claim 24 as described above. Bennett further teaches the method wherein said fingers together form hooked formations **49**.



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37. Claim 26: Krumweide/Bennett teach the method of claim 24 as described above.

Bennett further teaches the method wherein said fingers together form barbed formations **49**.

38. Claim 29: Bennett teaches the method wherein said base material has an inner surface having an adhesive material adhered thereto before said base material is adhered to said substrate (**Col. 3 lines 64-70**).

39. Claim 30: Bennett teaches the method wherein said base material is adhered to said substrate using an adhesive material (**Col. 3 lines 64-70**).

40. Claim 31: Krumweide/Bennett teach the method of claim 16 as describe above but do not specifically teach the method wherein said base material is tack-welded to said substrate.

41. Krumweide teaches the method wherein tack welding is used to adhere the securing means to the substrate (**Col. 7 lines 39-41**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used tack-welding for the purpose of adhering the base material to the substrate.

42. Claim 33: Krumweide teaches a method for preventing de-bonding of insulation from a container (**Col. 1 lines 16-34**), which comprises: forming at least a part of said propellant container from a substrate having an outer surface **12**; covering said substrate with means **10, 14, 16, 18** to retain foam insulation and forming an insulation material (**Col. 1 lines 20-24; Col. 2 lines 9-11**) over said outer surface of the retaining means but does not specifically teach the method including covering the substrate with

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a base material having a rough outer surface relative to said outer surface of said substrate.

43. Bennett teaches a method for retaining insulation including covering a container substrate with a base material **27** having a rough outer surface (**including attached irregularities 33; Col. 2 lines 63-65**) relative to said outer surface of said substrate for the purpose of securing insulation to the surface of the container.

44. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated use of a base material having a rough outer surface for the purpose of retaining insulation given the teaching in Krumweide of the use of rough layers (**e.g. 14, 16**) for ideally securing insulation to the container surface.

**45. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krumweide in view of Bennett and Sperber (U.S. Patent No. 6,584,749).**

46. Claim 19: Krumweide/Bennett teach the method of claim 16 as described above but do not specifically teach the method wherein the outer surface of the base material is corrugated.

47. Sperber teaches a method of spraying on insulation wherein the outer surface of the base material is corrugated (**Col. 4 lines 9-11; Figs. 1-2**).

48. It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated a corrugated base material for the purpose of securing foam insulation to the container especially given the teaching in Krumweide of the special bonding properties of non-smooth surfaces (**Col. 4 lines 25-45**).

**49. Claims 27-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Krumweide (U.S. Patent No. 4,239,564).**

50. Claims 27-28: Krumweide/Bennett teach the method of claim 21 as described above. Krumweide further teaches the method wherein said extensions are spaced apart but does not specifically teach the method wherein said extensions are spaced between  $\frac{1}{2}$  and 1 inch or wherein said extensions are disposed more densely in regions likely to de-bond from the substrate.

It would have been obvious, however, to one of ordinary skill in the art to have spaced the extensions as needed to prevent de-bonding. It is merely a matter of conventional experimentation and design choice to position the extensions having spacing density to obtain the desired insulation retaining properties. This includes and renders obvious spacing of between  $\frac{1}{2}$  and 1 inch.

### ***Conclusion***

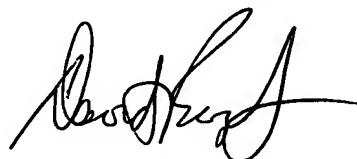
51. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher K. Agrawal whose telephone number is (571) 272-3578. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

52. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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53. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CKA

A handwritten signature in black ink, appearing to read 'David P. Bryant', with a stylized, flowing script.

**David P. Bryant**  
**Primary Examiner**